Armed Aerial Scout (AAS) Analysis of Alternatives (AoA)

What Is It?

The AAS AoA is an analysis of the capability gaps currently inherent with the OH-58D Kiowa Warrior, the Army's current Armed Reconnaissance Helicopter.

What has Army Aviation done?

In 2004, the Army produced an Armed Reconnaissance Helicopter (ARH) Initial Capabilities Document (ICD) and an ARH Capabilities Development Document (CDD). Together these reports documented numerous gaps in our armed reconnaissance capabilities and identified a portfolio of potential solutions to fill these gaps. As operations in Iraq and Afghanistan have demonstrated, the capabilities of our existing ARH fleet fall short of meeting all requirements needed to ensure mission effectiveness. Specifically, the current fleet of OH-58D helicopters lacks required: responsiveness in terms of speed, range and endurance; performance margin to operate in "high and hot" environments; and lethality due to limitations in weapons payload capacity.

The Army pursued the ARH program to rapidly address the OH-58D's capability shortfalls. However, the ARH program experienced a critical Nunn-McCurdy breach (we may know what this is, but a typical layman probably won't – maybe go with cost overrun or something like that?) and was terminated Oct. 17, 2008.

In the termination, Acquisition Decision Memorandum (ADM), the Defense Acquisition Executive (DAE) validated the need for a manned helicopter that is armed, small, and maneuverable and stated that recent feedback from operational theaters had emphasized the capability benefits provided by the OH-58D. These conclusions supported a new AoA based on the need for one or more materiel solutions.

The July 2009 Cost Assessment and Program Evaluation Office (CAPE) Study Guidance generated by the Office of the Secretary of Defense (OSD) recognizes that advances in unmanned aircraft systems technology have occurred since the initial ARH AoA was completed in 2005. It may provide potential materiel solutions not previously considered and could affect both the solutions and the relative numbers of manned and unmanned platforms.

Aug. 24, 2009, OSD – Acquisitions, Technologies, and Logistics (ATL) issued an ADM directing a new AoA.

Nov. 17, 2009, an OSD CAPE-led advisory group was briefed on and approved the AAS AoA study plan.

The AoA will answer the following questions:

- What unique capabilities do manned and unmanned aircraft provide in support of armed aerial reconnaissance?
- What is the priority of the capability gaps?
- What are the attributes, and their associated threshold values, required for a materiel system (manned or unmanned) to provide the required capability?
- What is the cost estimate of the three alternative categories?
- To what extent does each alternative meet the Armed Scout required mission capabilities?
- How does each alternative impact operational effectiveness?

- What quantities are required for each alternative to provide the required capabilities?
- What are the technical, developmental and production risks for each alternative?
- What are the Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel and Facilities (DOTMLPF) advantages and disadvantages of each alternative?
- What is the life-cycle cost estimate range for each alternative?
- What is the affordability of each alternative?

What continued efforts does Army Aviation have planned for the future?
The AAS AoA will establish the differences between the effectiveness and efficiency with which manned and unmanned platforms conduct the armed reconnaissance mission. Further, it will delve into the nuances of manned/unmanned teaming and what benefits might be derived from a solution that focuses on that technique. The AAS AoA will determine the future path that Army Aviation will take when solving the issues relating to the future of armed aerial reconnaissance.

The following is the current AAS AoA execution schedule:
- Manned Teams 1-4/Unmanned Team 1Data Collection took place Jan. 11-Feb. 15,2009;
- Study Advisory Group (SAG) at Fort Rucker took place Feb. 17, 2009;
- Unmanned Teams 2-4 Data Collection Runs from Feb. 22March 20, 2009;
- Phase I result to SAG (Virtual Experiment) in April 2010;
- Final AAS AoA report to advisory group in December 2010; and
- Final AAS AoA report published in April 2011.

Why is this important to the Army and Army Aviation?
Whatever the AoA derives as the solution for the armed aerial reconnaissance problem, it must improve the commander's ability to maneuver and concentrate superior combat power against the enemy at the decisive time and place. The precise application of combat power and effective synchronization of maneuver and supporting fires require a current and accurate picture of the enemy's current dispositions and activity within a given area of operations. The armed aerial reconnaissance platform will play a critical role in providing this information and provide advantages over other intelligence sources by countering enemy deception efforts, providing improved real-time situational awareness and assessing terrain.

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